

REMARKS

This Amendment and Response is being submitted in reply to the Official Action dated December 4, 2000, and within the time for response as extended herein.

64 claims (1-65, minus claim 35) were pending in the application. Claims 14-31, 42-49 and 50-65 were allowed. Claims 5-8, 11, 13, 34, 36-38, 40 and 41 were objected to but were indicated as allowable if rewritten in independent form.

A number of claims have been cancelled from the application. It is submitted that such claims should be cancelled, without any prejudice to the Applicants with respect to those claims remaining in the application or with respect to those claims added to the application by reason of this Amendment. In particular, Claims 1, 9, 10, 12, 32, 33, 36, 37, 39 and 42-65 have been cancelled. Cancellation of such claims was not made in view of any of the art cited by the Examiner. Some of the claims were cancelled in view of the fact that they had already been covered by other patent applications. Others were cancelled in view of the fact that their respective subject matter is now included within other amended claims.

Claim 5, which was objected to, has been rewritten in independent form, and includes the subject matter of those claims from which it previously depended. No new matter has been added by reason of amendment to claim 5. Claims 6-8 depend from claim 5.

Claim 11 has been rewritten in independent form, and includes the subject matter of those claims from which it previously depended. No new matter has been added by reason of amendment to claim 11.

Claim 13 has been rewritten in independent form, and includes the subject matter of those claims from which it previously depended. No new matter has been added by reason of amendment to claim 13.

Claim 34 has been rewritten in independent form, and includes the subject matter of those claims from which it previously depended. No new matter has been added by reason of amendment to claim 34.

Claim 38 has been rewritten in independent form, and includes the subject matter of those claims from which it previously depended. No new matter has been added by reason of amendment to claim 38.

Claim 40 has been rewritten in independent form, and includes the subject matter of those claims from which it previously depended. No new matter has been added by reason of amendment to claim 40.

Claim 41 has been amended to depend from claim 40.

New independent claim 66-70 have been added to more fully cover the novel and unobvious aspects of Applicants' invention. Applicants believe that the subject matter of such claims are neither disclosed nor rendered obvious by any of the teachings of any of the art of record.

With respect to the Drawing, Applicants acknowledge the requirement for amended drawings, but ask that such drawing changes be held in abeyance until final disposition of the application on the merits of the claims.

Applicants believe that they have made a contribution to the art which should be recognized by the allowance of claims commensurate in scope with their invention. Applicants believe that all claims remaining in the application define their invention in a clear and concise manner, and that such claims are neither disclosed nor rendered obvious by any of the teachings of the art of record. Accordingly, Applicants respectfully request allowance of all claims remaining in the application.

Respectfully submitted,

Date

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

Claim 1 has been cancelled without prejudice.

Claim 2 has been amended as follows:

2. (Amended) The method of Claim [1] 5, including the step of arranging the beverage containers on shelves within the machine in ordered contained rows of said containers, said rows extending generally in a direction from front to back of the machine

Claim 5 has been amended as follows:

5. (Amended) [The method of Claim 1, including the step of] A method for vending beverages packaged in sealed containers, comprising:

a. storing a plurality of packaged beverages in selectable queues of containers of such beverages within a vending machine;

b. arranging [a] said plurality of [the] beverage containers in contained alignment within a plurality of selectable identifiable trays within the vending machine, said trays having at least a portion thereof extending in the direction from front to back of the machine[.];

c. aligning a robotic assembly in the machine in registration with a customer selected one of said beverage container queues;

d. transferring one of the beverage containers from the selected container queue to the robotic assembly;

e. carrying the transferred beverage container to a delivery port of the vending machine; and

f. presenting the carried beverage container at the delivery port for customer removal from the vending machine; wherein the entire process is performed without dropping or subjecting the container to severe impact forces.

Claim 8 has been amended as follows:

8. (Amended) The method of Claim [1]5, wherein the step of carrying includes moving said transferred beverage by said robotic assembly in a generally vertical X-Y plane of travel within said vending machine.

Claims 9 and 10 have been cancelled, without prejudice.

Claim 11 has been amended as follows:

11. (Amended) [The method of Claim 9, wherein the step of moving the bottled beverage comprises] A method of vending bottled beverages from a vending machine of the type having a transparent front viewing panel that enables customer viewing of the actual beverages held by the machine and available for vending, comprising the steps of:

a. aligning a plurality of bottled beverages in at least two ordered queues of said beverages;

b. providing a customer selection input identifiable with at least one of said two ordered queues of beverages;

c. removing a bottled beverage from said one of said ordered queues by a robotic assembly in response to said customer selection input; and

d. moving said removed bottled beverage to a delivery port of the machine by smoothly moving the bottled beverage by said robotic assembly in a generally vertical X-Y

plane within a vend selection space of the vending machine[.]; wherein said removing and moving steps are smoothly performed without dropping or subjecting the bottled beverage to sharp impact forces.

Claim 12 has been cancelled, without prejudice.

Claim 13 has been amended as follows:

13. (Amended) [The method of Claim 12, wherein the step of removing said bottled beverage includes] A method of vending bottled beverages from a vending machine of the type having a transparent front viewing panel that enables customer viewing of the actual beverages held by the machine and available for vending, comprising the steps of:

a. aligning a plurality of bottled beverages in at least two ordered queues of said beverages;

b. providing a customer selection input identifiable with at least one of said two ordered queues of beverages;

c. removing a bottled beverage from said one of said ordered queues in response to said customer selection input by releasing an escapement mechanism associated with said one of said ordered queues for enabling the bottled beverage being removed to slide by gravity into said robotic assembly; and

d. moving said removed bottled beverage to a delivery port of the machine;
wherein said removing and moving steps are smoothly performed without dropping or subjecting the bottled beverage to sharp impact forces.

Second Claim 22 through Claim 24 have been renumbered as Claims 23-25.

[22]23. (Amended) The vending machine of Claim 22, further including a container release operatively connected with at least one of said queues adjacent said discharge end thereof for selectably retaining said beverage containers in said one queue.

[23]24. (Amended) The vending machine of Claim 23, wherein said container release comprises only passive components.

[24]25. (Amended) The vending machine of Claim 23, wherein said beverage container capturer includes means cooperatively engagable with said container release of said one queue for activating said container release when removing a container from said container holder.

Claims 32 and 33 have been cancelled, without prejudice.

Claim 34 has been amended as follows:

34. (Amended) [The vending machine of Claim 32, further including: (a.)] A vending machine for vending selectable products comprising:

a. a product storage chassis including a door, cooperatively forming an internal cavity; said chassis including a transparent panel portion for enabling viewing therethrough into said internal cavity and a product delivery port spaced from said transparent panel portion; said product delivery port including:

(i) a delivery port door operatively positioned to selectively open and close said delivery access port to access therethrough;

(ii) means cooperatively connected with said delivery port door for enabling opening of said door only when said selected product is present for removal at said delivery port; and [(b.)]

(iii) a lock operatively connected with said robotic assembly adjacent said product delivery port for locking said robotic assembly against movement whenever said delivery port door is open;

b. a product selector operable by a customer for generating a vend control signal indicative of a product selection of the customer;

c. a support operatively mounted within said internal cavity of the product storage chassis for supporting said products in a plurality of selectable and separate ordered queues of such products; and

d. a robotic assembly mounted to said chassis and operatively movable within said internal cavity in response to said vend control signal to rapidly and smoothly remove and carry a selected said product from its associated said ordered queue to a product delivery port without dropping or jarring the selected product; wherein a customer can view the entire product removal and carrying operations of a vending cycle of the machine through said transparent panel portion.

Claims 36 and 37 have been cancelled, without prejudice.

Claim 38 has been amended as follows:

38. (Amended) [The vending machine of Claim 32] A vending machine for vending selectable products comprising:

a. a product storage chassis including a door, cooperatively forming an internal cavity; said chassis including a transparent panel portion for enabling viewing therethrough into said internal cavity and a product delivery port spaced from said transparent panel portion;

b. a product selector operable by a customer for generating a vend control signal indicative of a product selection of the customer;

c. a support operatively mounted within said internal cavity of the product storage chassis for supporting said products in a plurality of selectable and separate ordered queues of such products, wherein said support is configured to support said products of differing shapes within said queues; and

d. a robotic assembly mounted to said chassis and operatively movable within said internal cavity in response to said vend control signal to rapidly and smoothly remove and carry a selected said product from its associated said ordered queue to a product delivery port without dropping or jarring the selected product; wherein said robotic assembly is operable to remove and carry said selected products of differing shapes; and wherein a customer can view the entire product removal and carrying operations of a vending cycle of the machine through said transparent panel portion.

Claim 39 has been cancelled, without prejudice.

Claim 40 has been amended as follows:

40. (Amended) [The vending machine of Claim 39,] A vending machine for vending selectable products comprising:

a. a product storage chassis including a door, cooperatively forming an internal cavity; said chassis including a transparent panel portion for enabling viewing therethrough into said internal cavity and a product delivery port spaced from said transparent panel portion;

b. a product selector operable by a customer for generating a vend control signal indicative of a product selection of the customer;

c. a support operatively mounted within said internal cavity of the product storage chassis for supporting said products in a plurality of selectable and separate ordered queues of such products, at least one of said queues being inclined at an angle to the horizontal; and

d. a robotic assembly mounted to said chassis and operatively movable within said internal cavity in response to said vend control signal to rapidly and smoothly remove and carry a selected said product from its associated said ordered queue to a product delivery port without dropping or jarring the selected product;

wherein said robotic assembly is operable to remove said selected products from said at least one inclined queue by sliding said selected products with the help of gravity into said robotic assembly; wherein a customer can view the entire product removal and carrying operations of a vending cycle of the machine through said transparent panel portion.

Claim 41 has been amended as follows:

41. (Amended) The vending machine of Claim [395]40, wherein said support includes a low friction floor portion in said at least one of said queues disposed at an inclined angle for supporting said products within that queue.

Claims 42-65 have been cancelled, without prejudice.

New claims 66-71 have been added.

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